NACT, Dollar Phone uses the CDR records from the NACT for billing purposes.

Although multiple CDRs exist for calls as they pass through both switches, ultimately only a single customer CDR exists in the NACT per call. This is the CDR Dollar Phone exported to its database for all its billing functions. Customer service calls, although they are not charged for, also have a CDR.

There is a one-to-one ratio of CDRs - Nortel DMS to NACT.

In Qrt4, 2007, the switch to the VERAZ switch was generally complete, although testing continued. Records are processed in their entirety by the VERAZ. This leads to some confusion as the record formats of the switches are not consistent. As a result, the auditor's spreadsheet shows multiple types of customer CDRs based on which switch was in use at the time.

Nonetheless, the totals of CDRs are the same and the audit process is not materially compromised.

In general, then, there is a CDR for every call, payphone and other, completed and not, in the switch, and, subsequently, in the Dollar Phone database.

FCC Order on Reconsideration FCC 3-235: The Pay Telephone Reclassification and

Provisions the Compensation Telecommunications Act of 1996 CC Docket No. 96-128 states in (35): "We note that in order to track a payphone call to completion, an entity must identify whether a call originates from a payphone information digits), where it originates and terminates (via ANI information), and whether it is completed and therefore compensable (via answer supervision)." The same document also states in (39): "We conclude that the SBR may use the technology of its choice to track coinless payphone calls to completion, provided that its system permits an independent thirdparty auditor to verify the accuracy of the data so that the PSP is assured that it is properly compensated". Further in paragraph (41): "As noted above in the specific compliance criteria, the SBR's representation must disclose its criteria for identifying calls originating from payphones, its criteria for identifying compensable payphone calls, its criteria for identifying incomplete orotherwise noncompensable calls, and its criteria used to determine the identities of the PSPs to which the SBR owes compensation".

In order to mine out potentially compensable payphone calls from its database, Dollar Phone first extracts all toll free calls, and, then, again extracts all calls with an information digit of 25, 27, 29, or 70. From this database subset, Dollar Phone then attempts to determine if the call was completed. To effect this, it has several choices with the switch records: (1)

Outbound duration greater than 60 seconds; (2) Answered duration greater than 0 seconds; or (3) Call completion code less than 06h (a hexadecimal number). In fact, there appears to be no one best way to use insofar as some parts of the world, to which Dollar Phone sends calls for its customers, support completion codes, others do not, some take longer to process the customer's call than others, and so on.

Note that the all switches do not support all these parameters.

In general, then, Dollar Phone extracts compensable calls using the outbound duration of the call for the NACT switches and completion plus answered duration for the VERAZ.

Information digit 25 calls are payphone telephone calls which have been translated from a toll free number to a local number (POTS number) and occur, in cases where a completing carrier uses a local access number to reach its switch and its customers elect to use a toll free number from a payphone rather than deposit coins to dial the local access number. These calls are, of course, compensable.

This audit, then, used the above methodology to determine if Dollar Phone was properly compensating payphone telephone owners.

How It Proceeded

Multiple data mining runs were run against all datasets from each calendar month, from the first month of data available subsequent to the last Dollar Phone's audit that ended June 2007. The dataset was then run through the external auditor's data mining system (SQL system engine) and the DAC calls extracted, counted, filtered, and graphed.

The same dataset was then rerun through the Dollar Phone SQL reporting system for those same reporting periods by Dollar Phone IT personnel¹³.

The data was extracted from of the system, month by month, counted and checked, and then inserted back into the existing Dollar Phone SQL system. The number of DAC calls was extracted, counted, and graphed.

As a cross check, several other sub-datasets were extracted at random from the master datasets and run through the Dollar Phone IT SQL system to verify the same sub-dataset was generated. The counts were compared to assure there was no data

¹³ Actually, since the company keeps detailed records, the actual process was to run the data mining process outside of the company and compare results against the company's existing records.

manipulation, as is directed by GAGAS recommendations in regards IT operations.

As a third cross-check, the data mining reruns from the Dollar Phone SQL engine were cross checked against the reports provided to Dollar Phone accounting for financial reports which Dollar Phone runs as a routine part of its business.

The Data Mining Process

History Behind the Audit

Prior to June 2004, detailed reporting was not required of the completing carriers. Since Dollar Phone utilizes a partner clearinghouse for its PSP payables, there were no actual dataset reports delivered to accounting nor to the clearinghouse for payphone compensation prior to the July 2004, and none were required. Data has been collected for all months subsequent. Since the volume of data call records is in the tens of millions per month, there is an expected minor difference in the data record counts when any dataset moves from one location to another - IXC to Dollar Phone switch, switch to SQL engine, SQL engine to paper reporting. The places where these differences can occur are:

- The IXC or FG-B¹⁴ records versus the Dollar Phone switch-generated call records
- The Dollar Phone switch-generated call records versus the SQL system call records
- The Dollar Phone SQL system DAC subset call records versus the records received by accounting, although this latter is minimal.

Note:

In this context, when "records received by accounting" is referenced above, it means the customer data mining output (selected pertinent fields¹⁵) which would be given to company accounting in electronic format to be processed by accounting for PSP compensation for the periods referenced, not ALL the customer records, the vast majority of which are not relevant to payphone compensation.

The Data Mining Approach

The IT management audit process took the most extreme look.

Customer data records and IXC invoices were sent outside Dollar Phone to an

¹⁴ Feature Group

¹⁵ Fields refers to a part of a customer record or a call record. For example, there is a "date" or a "datetime" field in the customer data record. There are also fields containing the info digits, call durations, completion codes, etc. In this document, references are made to fields meaning meaningful portions of each customer data record, or, call data record. However, in some places where the SQL language is displayed relating to the data mining process, the term "row" means call data record or customer data record, and, the term "column" means the field within that record with the pertinent data. The use of row and column are data mining terms.

independent data-mining group outside auditor). The outside data-mining service's SQL engine systems compared the numbers of IXC and FG DAC calls to the numbers of records being handed to Dollar Phone accounting (for payment through its clearinghouse) for all of the previously defined periods. This was done by tallying IXC paper statements and data from IXC billing CD-Rs for each of the periods. The premise is that Dollar Phone has no control over the IXC's records, and, thus, the number of calls being handed to Dollar Phone by the IXC's is a valid start point (anchor point of accuracy with high degree of statistical confidence) for the audit process.

Accounting journal entries were then compared against checks issued (in this case, payments information provided by the clearinghouse). Since this, essentially, outside "arriving" compares (verifiable IXC invoices) outside to "departing" data (verifiable checks issued), and is completely outside any Dollar Phone influence, this approach scenario greatly reduces the possibility of data manipulation and is presented evaluation.

Dollar Phone receives potentially compensable dial-around calls from payphone providers through only certain trunk groups coming into its switches. This is typical in the completing carrier industry. Trunk groups allow the carrier to

manage traffic effectively. Although all the CDRs are mined routinely, for the purpose of the audit, only those CDRs belonging to appropriate trunk groups contain potentially compensable payphone calls are used.

The next phase in the audit process was to isolate each step in the data transfer process and determine dataset error/miss rates. There will always be some data loss in very large databases consisting of near 100 million customer call records per month. A small error rate, consistent over time, indicates routine data loss in the systems (typically less than 1,000 records per 1 million customer records). Erratic spikes. rates. indicate error or failures. possible programming or, attempts to keep significant numbers of records out of the billing system.

In Dollar Phone's case, only those trunk groups belonging to its IXCs providing toll free service¹⁶ with whom Dollar Phone has contracts to carry compensable payphone calls, and, thus, which represent only those carriers from whom Dollar Phone can get compensable dial-around payphone calls, were examined, after confirming that compensable calls could not arrive in other ways¹⁷.

¹⁸ Inter-Exchange Carrier

¹⁷ See the customer certification in the plates section.

These IXCs provide call counts via their respective monthly billing (paper / electronic) statements. Those statements list the total number of calls, among other billing items, delivered to Dollar Phone. As is typical within the industry, IXCs do not always adhere to a calendar monthly billing cycle. For example, one IXC sends statements electronically, weekly. Another sends statements on paper, monthly. As a result, it is not practical to do an exact month-to-month call count¹⁸. Over time, it becomes relatively easy to see anomalies in the data if they exist, even without precise counts.

The record loss/gain (difference) ratio between the incoming IXC recordset data and the switch recordsets was mapped over the period and found to be minor and consistent (see graphics and tables which appear throughout this section). But, since any data loss represents potential revenue

loss to one, or more, of the parties (the completing carrier and/or the PSP), in view of the fact that this audit was specific to DAC calls, the process suggested an audit of the system against the incoming IXC records to determine the ratio of DAC payphone calls to all calls. This ratio demonstrated what number of DAC calls might be expected to be lost and what revenue is at risk.

The two issues were:

- How much money (PSP compensation) is at risk of being lost over any period;
- Is the ratio of DAC calls to total calls, over time, consistent, or is it seasonal or affected by some other factor, which would slew the potential revenue-lost numbers, and not appear in an averaging system. For example, historically there is a spike in calling card LD¹⁹ calls (dial-around) on Sunday afternoons. Since each month can have a different number of Sundays, month-to-month averaging systems have to compensate for the number of peak calling periods Sundays.

Data mining showed the actual number of compensable payphone calls was small

To do so would require culling through the electronic document from Global Crossing, for example, and adding up calls, one by one, from the call listings on the PDF (not CD or DVD) document to try to match them to the WorldCom call listings by month. This is not practical. However, if you add up each of the Global Crossing weekly statement call counts for the period, more or less, of a quarter, and, then divide by 3 months, you get a reasonable estimate of call traffic. Over a year, this averaging gives a reasonable level of data with which to measure consistency, if not exact counts.

¹⁹ Long Distance – In this case reflecting all calls, compensable and non, traversing the completing carrier's systems.

relative to Dollar Phone's mainstream business.

The loss ratio of calls - IXC to Dollar Phone's switches - was minor and consistent over the reporting periods for the audit.

For this audit, as was expected by the nature of the dial-around and calling card systems, the switches at Dollar Phone recorded slightly different payphone call counts than can be accounted for in a review of the IXC records.

This is explained by some IXCs weekly billing process and the inability to easily match call-for-call by calendar monthly period. Over time, these slight anomalies statistically smooth out and it was not considered generally relevant to try to adjust for these small discrepancies.

Explanatory Note

Because numbers of calls handed to the Dollar Phone switches by the billing IXCs are recorded on IXC statements issued at various times through the month, rather than on the same day each month, a procedure had to be developed to reasonably convert CDRs and their dates to match monthly delineators. It IS possible to precisely log calls from the IXCs, but this would involve:

Getting the customer call records

from the IXC in electronic format, determining the record layout used by the IXC, and building a supplemental database for the IXC which produced additional counts based on calendar monthly times rather than mid-month dates, or;

 Manually go through the end of month weeks and overlapping weeks/days and calculate by hand the numbers of calls. Since those numbers would be in the millions, this is not practical.

The procedure developed is this: For those invoices not on an exact monthly cycle, take a week overlapping two months. Divide the number of calls over that overlap week by 7 days to get the average number of calls (call records) per day. Multiply the number of days from the week in the ending month by that number and place it in that month's reporting. Similarly proceed for the new month. This data becomes skewed because the Sunday in the group must fall in one month or the other, and, a majority of calls occur on Sunday. However, over time, this spike tends to even out.

Important:

It is important to understand that utilizing an averaging system is for the purpose of providing ratios for graphical analysis, and, has no bearing whatsoever on whether, or not,

payphone providers are compensated for calls.

There was no detectable loss in the internal Dollar Phone's systems for data traversing from the switches to the final recordset destined for transmittal to Dollar Phone accounting, as would be expected from a closed system (Note the exception in the "Catastrophic Failure" section).

From the tables, please note the outside audit numbers match Dollar Phone's accounting.

The number of calls handed to Dollar Phone by its IXCs varies somewhat from the number recorded by data mining on internal data. See the charts for details.

The reasons for this are as follows:

- The averaging system noted above for graphical reporting will be skewed by the number of Sundays in any one month due to customer calling habits;
- The very nature of averaging introduces some error in the very short time span.
- The IXCs do not always invoice all calls in the month they occur. For example, some calls for April may show up in an invoice a month or two later. No attempt is made to try to trace these calls back and put them in a proper month. They are lumped into the month in which they are received via the IXCs' statements. Since the calls are

handled by the Dollar Phone systems in the month they are received – always – some calls processed by Dollar Phone for, say, April 2008, are not invoiced by, say, Global Crossing, until several months later.

- Timekeeping between the IXCs and Dollar Phone is different. There is no standard time control standard, and, different IXCs are in different time zones.
- The SQL system sometimes misinterprets valid records as being invalid, or invalid records as being valid, due to other anomalies in the record, and miscounts.
- A call from a payphone is counted as a single call, however, if the caller presses the number key (#), and initiates a second, or third call, then the Dollar Phone switch considers that 2 or 3 calls, whereas the IXC (and the payphone provider's pay telephone phone database) calls it ONE call. This scenario will generally account for a fair percentage of the difference.
- Calls which come in from an IXC but never make it through the Dollar Phone switch. These calls would include wrong numbers, bad PIN codes, hackers trying to breach the calling systems or breach account security, burned out calling cards, etc. These scenarios represent a significant portion of the call discrepancies.

On average, these mathematical averaging differences work themselves out over time.

It is important for a reviewer to look for trends, rather than focusing on specific anomalies in very small time frames.

The charts accompanying this audit rely heavily on graphical tables and trends to discover issues.

The number of possible compensable payphone calls lost between the IXC records and the Dollar Phone records (record with the IXC but not with Dollar Phone) is relatively small, and consistent over time, but even that small number is technically immaterial as a call handled by an IXC, but not recorded in the Dollar Phone switches, is not an actual completed call (for some reason it was "handed to" Dollar Phone but never "accepted", or just got dropped). It was, thus, never completed.

Detail Regarding the Data Mining Processes

The number of compensable calls being processed by the Dollar Phone SQL engine for transmittal to accounting generally

matched the outside auditor's SQL^{20} reports for the same reporting period.

Data (call records of all kinds) follow only one pathway through the Dollar Phone switch system.

Calls arrive at the switch from the IXC. If valid, they are processed and a customer record, or records, created. The potentially compensable PSP calls (along with prepaid calls and others) are handed to a switch due to the superior onward routing capabilities of the switch and it's prepaid accounting systems.

Within the switch, information on the calls (the call record) is controlled by the MCU²¹ and the switch control systems²². This is switch hardware and software built by outside manufacturers, not Dollar Phone hardware and software.

²⁰ (Structured Query Language) A specialized language for sending queries to databases. Most industrial-strength and many smaller database applications can be addressed using SQL. Each specific application will have its own slightly different version of SQL implementing features unique to that application, but all SQL-capable databases support a common subset of SQL.

²¹ MCU: Master Control Unit. A standard feature of the VERAZ switch systems.

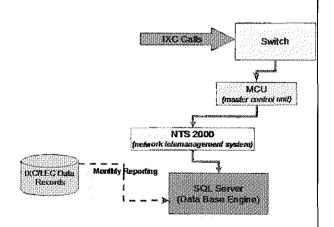
For the NACT, this is Network Telemanagement System.
For the VERAZ, the systems are internal

Call records are dumped periodically from the switch to a database system and stored on a server farm. Dollar Phone owns the database engine and server farm.

The IXC/LEC Data Records icon (purple) shown in the diagram below represents billing statements from IXC's. Most IXC's supply call records on CD-ROM or other electronic format. Some provide call records on paper (or, more precisely, in PDF format), or both, but offer a downloadable version

Note:

About the end of 2006, Dollar Phone began transitioning from NACT switches to VERAZ switches. This is an example from the NACT setup.



Graphical Help:

The above diagram is representative of a NACT switch and control unit system. Since changes are made to these systems over time, this image may not exactly represent the system in place at Dollar Phone, but it will be close. Its exact configuration is not material to the audit accuracy.

Within the switch and IT environment at Dollar Phone, the records are only susceptible to intentional mishandling at one point – the Dollar Phone SQL server and reports system - .

- Dollar Phone has no control over call records handed to its switches by its contracted IXC's. The IXC process these calls and counts.
- Dollar Phone does not have access to tools to manipulate data records within its switches (and collateral control systems) themselves, because records there handled switch by the manufacturer's software systems. The only way to affect call records within the switch environment are:
 - Shut down the switch
 - Delete large sequential blocks of data from the switch's internal disk memory
 - Prevent switch data from being handed (exported from the switch) to the Dollar Phone SQL system.
- In these instances, individual records are not accessible and no

such tools are typically provided by the switch manufacturer.

- To shut down the switch, or remove entire blocks of data, would also directly, and negatively, affect Dollar Phone's core business.
- Once the payphone compensation records have been formatted according to the accounting department's requirements, IT no longer has access to the data records.

The switch and its firmware and software are maintained by the Dollar Phone Senior Switch Engineer.

According to the Dollar Phone switch engineers, the company's switches are maintained in accordance with the manufacturer's specifications. After prudent due diligence, firmware and software updates are made to the switches in accordance with the switch manufacturer's guidelines.

Switch software and firmware updates provide no functionality / utilities / programs for internal data record modification.

If payphone compensation records are failing to accurately transit the system, for whatever reason, it is most likely to occur within this segment where data is transferred to or from the Dollar Phone SQL server farms. In fact, this is the portion of the data records' flow where directed data mining and record manipulation actually take place in the normal course of business.

As of the time of this audit, the SQL system in use on the Dollar Phone server farm is Microsoft SQL ("SQL-ServerTM"). Other servers are running under Open Source Linux or licensed SCOTM Unix.

Operating system and applications software revisions are not material to the integrity of the customer call data record SQL systems.

Because no system handling millions of records is perfect, there is always a chance of loss, or miscount, of some data. It was necessary to determine that loss/gain ratio, and, if it was consistent over time. Given a large enough data sampling, it becomes apparent what the expected (average) error rate is, and if it is suspect.

Data Flow through the System

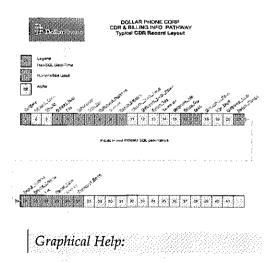
Dollar Phone first receives notification of a call when its IXC hands the call to the Dollar Phone switch via a trunk group. At this point, the Dollar Phone switch creates a data record. The record format is noted

in the Appendix section – plates – and is shown below in reduced resolution.

It is important to note that the switch manufacturers make changes to software systems on a regular basis, and data record formats change from time to time. The record layouts shown below are representative of the older Dollar Phone NACT switches, but not necessarily exact. Pertinent fields (columns) in the CDR may be in slightly different locations in the record.

From a dial-around payphone compensation perspective, only a small number of fields in the record (called "columns" in the industry-standard SQL programming language) are material. They are generally noted in red in the diagram.

Other completing carriers use additional fields (columns) but that is not material to this part of the process.



The chart above lists blocks which show, graphically, the various columns, or data fields, in a sample customer data record. For example, the first column, "Call Date", is obvious. The data contains month-day-year-hourminute of the call. Specifically, it is the time the record was created in the switch, which varies slightly from the actual time and from the time the IXC and the payphone database recorded the Column #15 is the call initially. originating ANI. Columns in dark green are specialized format depending on the switch software revision. Some columns are simple text and some are binary representations.

When the call is completed, or terminated without being completed, the call record's fields are populated by the switch software. For every call handled by Dollar Phone's switches, there is a call record.

For calls where a caller uses the number (#) key to make a second call, then a second, and separate, call record is produced.

Note

This is an important point. A payphone provider payphone database can record, typically, only a single call, but the caller can actually make several calls with that single connection. To the payphone provider, it is a single call. To the completing carrier, it is multiple individual calls. That means

that the payphone provider, and the IXC handling the call initially, will record LESS (number of) calls than the completing carrier.

At regular intervals, the call records are "dumped" by the switch software to the switch supervisory software system (also provided by the switch manufacturer) where they are held until further transmitted to the Dollar Phone SQL system.

Up to this point Dollar Phone personnel have little opportunity to change any individual record.

Loading Electronic IXC Datasets

This section describes the process for assuring that all potentially compensable toll free calls are accounted for.

As noted, Dollar Phone has no control over the 'calls' being handed to it by its contracted IXCs. Therefore, it may be assumed that IXC data cannot be manipulated by Dollar Phone, and, thus, is a solid basis for initial counts.

The IXC sends customer CDRs to Dollar Phone every month on CD-ROM, along with, generally, a paper summary bill (or PDF). Dollar Phone accounting records the number of calls being billed by the IXC

from its summary page, or, by actual CDR counts.

For the purpose of this audit, call records were counted using the IXC CD-ROM call lists. Calls (CDRs) were loaded into the auditor's SQL database, one database table per IXC. A total count by IXC for the audit period – July 1, 2007, through June 30, 2008 – was logged in a spreadsheet for each of the IXCs. It is noteworthy that there are too many records to use a spreadsheet to count the records, so a database must be used.

Once all the CDRs from all the IXCs are loaded and the total counted, they are then counted by quarter, using the CDRs own datestamp. Note that each IXC uses its own CDR record layout, so that one SQL query does not "fit all". In the case of Sprint, for example, the SQL query to count the total number of records for the 3rd quarter, 2007, is

SELECT count(*) FROM

Dollar_Phone_2008.sprint2

Where substring(`column #1`,67,8) between
'20070701' and '20070930'

The above is for example only and not necessarily the exact query. This is repeated for each quarter for each IXC. Note that the IXC CD-ROMs contain multiple months, and, may not start on the

first of any month, so the date parsing is required.

When all CDRs have been tabulated, a spreadsheet is populated and graphed. The use of graphs allows the auditor to see any unusual patterns which may indicate data manipulation. This process is referenced in the GAO's IT Supplement to auditing.

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This graphic is reproduced in full resolution in the appendices.

At this point, the auditor has a basis including all possible calls made to Dollar Phone for the period of the audit.

This process may also be effected using the paper statements provided by the IXC. Both approaches are acceptable. In past audits, the paper invoice has often been the ONLY invoice available. For clarification, that process is still described herein.

Further clarification in the way the IXCs handle calls is included also.

Using Paper Invoices

(Alternative Approach)

Every month the IXC's may provide an electronic PDF, CD-ROM invoice or printed statement, to Dollar Phone listing all calls which have been handed to Dollar Phone's switch.

By contract, the IXC invoices Dollar Phone for "time used" (time being the off-hook to on-hook time during which the caller was using the IXC's circuits), whether or not the caller's call was completed as he wished, or, even if the caller had the right to use the Dollar Phone system (had a legitimate account).

As would be prudent with any business, Dollar Phone uses its accounting reporting systems to compare the total minutes used, and shown on the IXC statements, against its own records from the switches. That time used should closely approximate the amount of time Dollar Phone shows in its switch records. For example, if all record field/column CDR calls ("inbound call duration") shown ion the graphic total minutes for all record call ("inbound trunk group") records where the "trunk group" designators mean a specific IXC, should add up to the same number of minutes being billed to Dollar Phone by the IXC for that time period. Any major deviation indicates a possible switch or system

malfunction and is immediately investigated.

Note:

Dollar Phone does not try to "match" record for record with any of its IXC's accounting. It is not possible to do this because, even if Dollar Phone actually receives the actual IXC call records, there is no record "serial number" field which has a one-to-one correspondence between the Dollar Phone switch record and the IXC record. The only possibility records could be matched would have to be:

- An international/global "record identifier"; or,
- A "time" stamp match²³.

From the switch record layouts included, it is apparent no such unique record identifier exists. Given the number of IXCs, LECs, switches, and other systems handling call records, having a central clearinghouse for call record identifiers would be impossible, or, at the very least, would slow call processing down, given today's reasonable technology, so as to be impractical.

It is generally considered impractical to try to coordinate, and correlate, one-toone, call records given the current information systems topology.

When Dollar Phone receives the call record/minutes used from its IXC, it runs a report comparing minutes used against its own records. The auditor also utilized this information. The variation between the number of Dollar Phone switch records and the number of IXC records allows the auditor to create a variance factor. Since minutes-used is not material to payphone provider payments — only number of completed calls is — then call counts from the IXC paper invoices²⁴, or electronic

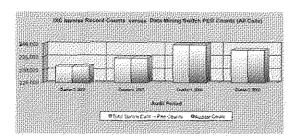
The other possibility is time stamps. However, there is no global common time clock used by the switches (some of which pre-date the Internet) and while some switches use "local time", others use UTC ("Universal Coordinated Time", formerly GMT "Greenwich Mean Time"). But since all carriers do not use a common time source, the time stamp recorded on the various call records as they pass through the various switches and systems are simply "different".

²³ The concept of a global time stamp, and its impracticality, is discussed further along in this document.

²⁴ "Paper invoices" as used throughout this document always refers to invoices received in any format – paper, email, PDF, CD-ROM, whatever.

records, versus call counts from the switches are compared.

Tabular reports and charts in the Appendix (and duplicated in low resolution through the main body of this document) run from July 2007, beginning of record-keeping for Dollar Phone for this audit, to June 2008 (latest information available). Given that number of reports, it is apparent that the variance between the



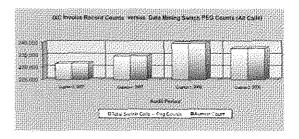
Graphical Help:

This graphic has two parameters: Tallied number of IXC calls handed to Dollar Phone versus call counts from the switch. There were, as expected, slightly more call records on the switch than were received from the IXCs.

sources – IXC and Dollar Phone switch – from this graphic, is very small. In fact, the number of calls recorded by the IXC's (in pink in the graphic) is less than the number processed by Dollar Phone (in green in the graphic) monthly. The discrepancy is explained in the "NOTE" following.

The slight difference is consistent over the audit period.

Note that this graphic depicts the total number of calls on IXC invoices for those carriers which hand potentially compensable payphone calls to Dollar Phone, not its other contract customers. If available, the total number of calls handled by Dollar Phone in any one month of this audit is depicted graphically elsewhere in this document. Contract customers are not required to be included in the audit.



Graphical Help:

This again is a numerical representation of the actual difference between the switch-recorded calls and the tally of IXC calls for the same period. It shows the additional call records generated by the switch when a customer presses the number key to complete a second or third call without having to log in again.

The number of calls being invoiced by the IXC's is slightly less than the number of call records on the Dollar Phone switches for the same periods, and, from the graphic, the ratio is fairly constant over the

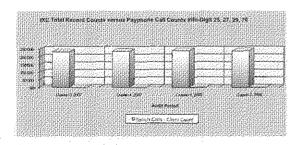
samples, it appears the data mining shows no unusual activity ("spike") or discrepancy.

Note:

The audit process of looking for discrepancies is consistent with recommendations in the GAGAS IT standards supplementary publication "Assessing the Reliability of Computer-Processed Data", reproduced in full in another section of the Supplemental Data binder. The use of graphics makes finding such discrepancies, if any, significantly easier.

This tends to exclude the possibility of potential fraud. Unless there is a long term corporate strategy in place for avoiding PSP payments (as will be checked later in the process of data mining runs), there is little evidence of data manipulation at this stage.

The following chart shows a ratio of the total number of payphone calls (compensable or otherwise) to the total number of customer calls processed by Dollar Phone in the same periods.



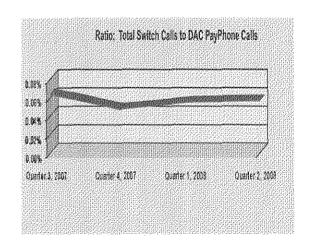
Graphical Help:

The purpose of this graphic is to show the relative number of payphone calls, by info digit, to the total number of calls handled over the period. Note that this is NOT the number of compensable calls, ONLY the number of payphone originated calls.

This chart was data mined by extracting all info digit payphone calls from the entire Dollar Phone switch database quarterly (from monthly data), and displaying the real numbers side-by-side.

The number of payphone calls is very small relative to the total number of calls handled by Dollar Phone.

Since it is difficult to see exactly what percentage of calls is handled by Dollar Phone from the graphic, the following graphic shows the same data in ratio form, rather than raw numbers. The percentages – total calls to payphone calls – is very small numerically.



Graphical Help:

This is the same chart as above except expressed as a ratio: Info Digit calls to ALL calls.

Note:

These charts also appear in higher resolution on plates in the Appendix.

The second part of the process was to determine which calls of the switch recordset were actually dial-around calls – the baseline purpose of this audit.

Accordingly, a second SQL program was run over the exact same recordset for each of the quarters noted in order to determine what percentage of calls were potentially compensable DAC calls.

The total number of dial-around calls relative to the total number of switch calls is small as noted above.

Note, more importantly, however, that the ratio numbers are consistent over the entire period of this audit. There are no data spikes, nor any apparent anomalies.

Given these ratios, it is now possible to determine the probability that a dialaround call is misplaced between the IXC and Dollar Phone. Smooth graphs over time indicate relatively consistent data handling. Spikes or other anomalies indicate something unusual and require investigation.

There were no such anomalies.

Note:

The outside auditor collected some data not depicted on the charts. This is recommended by GAGAS standards & procedures to try to avoid the auditor being given a dataset which has been manipulated. If data from the audit period is compared to random quarters selected by the auditor, but outside the audit period, and the data still shows the same consistency, the chances of data manipulation become very small.

Based on the chart above and the ratio of "all IXC payphone calls to Dollar Phone payphone calls", which shows, consistently, more Dollar Phone calls than invoiced IXC calls, it is reasonable to assume that very few calls are being dropped, or lost, at the juncture of the outside arrival of calls and the Dollar Phone switch systems.

There is still a small likelihood that some compensable dial-around payphone calls exist on the IXC records but not on the Dollar Phone switches.

This possibility is represented by only a few possible scenarios for payphone initiated DAC calls, and, in fact, for all calls:

 Those calls which never arrived at the Dollar Phone switch;

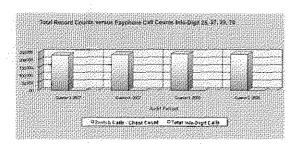
- Calls which were deemed invalid by the switches and dropped, and
- Those calls that were processed by the Dollar Phone switch (i.e. "valid"), but, for which, for whatever reason, there is no corresponding IXC record.

In this latter scenario, Dollar Phone still considers the call valid and processes it through its SQL system, and payment system, irrespective.

Auditing the PayPhone Compensation Processes

The next phase is to determine the accuracy of the Dollar Phone SQL DAC payphone compensation SQL systems.

The first data-mining test is to extract valid payphone calls from the entire switch database, quarter by quarter, which has been dumped from the switches and put on the Dollar Phone SQL server farms.



Graphical Help:

This graphic is reproduced here from above simply to aid the audit reviewer.

This first test run against the Dollar Phone data yielded the above graphic. The entire database, quarter by quarter, was combed for calls meeting payphone – info digit – criteria. Since potentially compensable payphone calls can only come in on certain trunks (that is, "800" numbers can only go through their assigned IXCs), and only through certain carriers (IXCs) with contracts with Dollar Phone, the second parameter, of the two for this run, was payphone calls on appropriate trunks.

It should be noted that the trunk groups used vary from time to time as the completing carrier optimizes systems. Accordingly, the following SQL language represents accurately only a sample quarter of the audit period. However, specific trunk group mappings are typically used for month-to-month / quarter-by-quarter data mining runs to extract compensable calls.

It need also be emphasized that the SQL statements which follow are representative only. That is, they are not the specific statements insofar as their structure varies based on type of switch, quarter, and other considerations defining how the auditor wished the data to be displayed.

The SQL for extracting potentially compensable payphone calls, and that which generated the graphic above, is as follows:

```
FROM CdrDB.dbo.CDR WITH (NOLOCK)
WHERE InfoDigit IN ('27', '29', '70') AND
InboundCarrier IN (48, 61, 62, 65, 339, 333,
381) AND
       -- prepaid 800 inbound calls
((
CallType = 1 AND
OutboundDuration > 60 AND
NewCallFlag = 0 AND
DNIS LIKE '8%' AND
LEFT(DNIS, 3) IN ('800',
'877')
) OR ( -- CS or Wsale 800 calls
CallType <> 1 AND
AnswerDuration > 0 AND
DestNumber LIKE '8%' AND
LEFT(DestNumber, 3) IN ('800', '866', '888',
'877')
))
```

The results of this SQL query are shown here in this SQL capture:

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(A high-resolution copy is in the plates section of the Appendix).

The SQL query language, above and in the previous text extract, requires some explanation.

The SQL statement tells the SQL query reporting system to display in a report these fields in each record (called "columns"). In the above, the system is asking for call date, outbound duration of the call, the amount of time the caller was talking, the trunk group, and so on.

The graphic depicting the switch customer data record elsewhere in this audit, and reproduced in the Appendix, shows these same fields along with all the others available in the record. For this SQL query, these fields are all needed to verify data.

The next part of the statement tells the SQL system from which quarter you want the report. In this case, it is Qtr1, 2008. This means to use the complete customer record as it comes straight from the switch, not a subset.

The rest of the statement modifies, and selects (for display), certain records. The first lines tells the SQL system only to count records that have the info digits in the valid range (payphone calls). When records are extracted, they come complete with descriptive column headers. If, for example, these records are imported into a spreadsheet, then row 1 would have the header "Call Date" to make it easier to

view. Subsequent rows would have the real data.

Some switch records are marker-batch count records, or test records, generated by the switch. These begin have invalid dates

The next line tells the system to only display records with trunk groups listed.

In the case of Dollar Phone, the valid trunk groups are as follows:



The trunk group numbers match the selected trunk group numbers in the SQL query.

The tabular graphic, also displayed above – results of the SQL query – shows the result of asking the SQL system to extract these records.

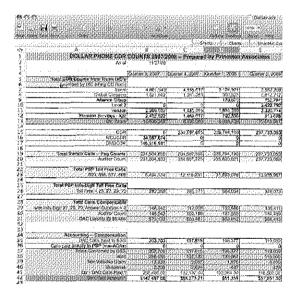
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From the graphic above, the SQL language (the query) appears in the box on top, followed by the results, line by line, below.

The result is similar to a familiar spreadsheet, only the system data mines through some 600 million to more than a billion call records before producing the report. No desktop spreadsheet is able to do this.

Not shown on the report is a counter of how many rows (records) met the criteria. This number is used to produce a spreadsheet summarizing all the data mining results.

A sample of the spreadsheet appears below:



From the spreadsheet, rows 7 through 12 show the tabulations from the IXC paper & CDROM invoices for numbers of calls.

Rows 15 through 17 are a result of data mining the raw switch records by trunk (intermediate carrier). As noted in the text of this audit, there are more calls on the switch, by period, than are recorded on the IXC invoices (explained earlier) Only IXCs which hand potential DAC calls to the switch are included in these counts.

Not shown in this graphic is a ratio in order for the audit to measure consistency. In this type of audit, to show overall compliance, consistency is more important than specific numbers.

Rows 19 & 20 show the results of switch counts from Dollar Phone's internal audit and the results from the outside auditor. They generally match, as should be expected.

A valid argument could be made that the auditor was given "manipulated data" at this point.

That is a possibility.

The outside auditor has no way to validate that the physical data actually received is a complete match with the switch data for that particular time frame. The only way would to have been present at the switch each time data was dumped from the switch – several times a day, 24 x 7, over 12 months – not possible. However, it is still possible to cross check the validity of the data.

The auditor was given the IXC paper invoices & statements for the audit period. Since they cannot be manipulated by Dollar Phone, then the auditor had a valid call count for the IXCs which carry

potentially compensable payphone calls for Dollar Phone.

That is the verifiably factual base from which the auditor began.

Then the auditor did a data mining run on the entire database (or, at least, the database which is supposed to be the entire collection of data records) given by Dollar Phone.

Then the auditor did another data mining run against this same dataset extracting the potentially compensable payphone calls using the valid trunk groups. This is shown in the SQL statement above and the resulting output table.

For Qtr 2, 2008, the auditor recorded these calls on row 30.

There is a very close match with row 29.

This means:

- The base number (assured valid) is the IXC paper invoice call count.
- This matches the call counts from the trunk groups for the same carriers data mined from the entire database from the switches for the period.
- Thus, the data base totals for all calls for the period is valid
- Therefore the full (raw) database (count number) is valid.

At this point in the audit, given valid data, there are no indications of attempts to manipulate data.

Compensable Calls Data Mining

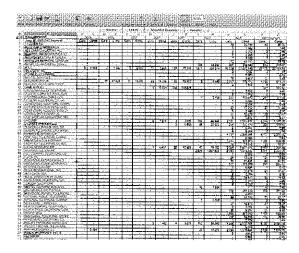
The next step is to extract compensable calls from the database.

This is the prior SQL query plus a check for valid call completion.

This produces a compensable call listing, by month and quarter, with count, for the entire audit period.

At this point, Dollar Phone takes this listing, reformats it into a second database sorted by ANI.

It then compares the ANIs in its listing for the month/quarter with a data base it has developed using information provided by APCC, the ILECs, and the other payphone owners and their associations, plus payphone information received from individual payphone owners on diskettes, e-mail, paper, whatever. Dollar Phone then produces a listing of payphone provider, number of calls from his phones, contact person and payee address, and submits this information to Dollar Phone accounting, or, the clearinghouse, for payment to the payphone provider or association.



The above is a sample of that spreadsheet.

Checks are cut and mailed, or, a check is mailed to the clearinghouse which pays the PSP.

The audit process then turns to the number of compensable calls data mined by the external auditor as compared to the payments made by Dollar Phone.

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	As of	11/27/08			- · · ·
			A STATE OF THE STA		
4	Total CDH Counts from Trunk IXC's	Quarter 3, 2007	Quarter 4, ZUU/	Quarter 1, 2005	Quarter 2, 2008
	(provided by IXC billing CD Rom)			r r	
	Sprint	4,801,543	4,155,617	3,124,921	2,552,288
8	Giobal Crossing	1,521,662	1,261,361	990,523	2,812,712
9	Alliance Group			179,575	752,797
10	Level 3	0		0	2,422,792
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27	Total PSP Toll Free Calls				
(5.15)	800, 888, 877, 866	5,494,134	12,116,231	31,993,076	13,938,967
19					
25	Total PSP Info-Digit Toll Free Calls		2000 4324	~~~	2.20.20
25	Toll Free + 25, 27, 29, 70	282,358	283,171	864,034	348,073
27 28	Total Calls Compensable				
29	with Info-Digit 27, 29, 70, Answer Duration > 0		112,008	132,680	135,411
30				Hawaa Pilipa aa dhaa ka k	
31	Auditor Count	148,042	102,188	127,555	134,499
32	Direct Pay and Prior (2007) Adjustments	155,661	25,607	-26,303	-15,472
33	Net	303,703		101,252 \$50,018	119,027 \$58,799
34 35	DAC Liability @ \$0.494	\$150,029	\$63,131	300,010]	300,130
36					
37	Accounting Compensation]			
38	DAC Calls Sent to BSG	303,703	137,615	106,377	119,939
39	Other	0	0	0	0
40	Totals Confirmed by BSG	303,703		106,377	119,939
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In the spreadsheet above, rows 31 through 34 show the auditor's data mining run for Qtr 3, 2007, through Qtr 2, 2008. The auditor's data mining run matched the call counts provided by Dollar Phone for the period.

Because Dollar Phone accounting keeps payment records by quarter (as permitted by the FCC rulings), rather than monthly, so does the auditor.

The auditor then collected payment journals for the periods from accounting and tabulated them. From this, for Qtr2, 2008, for example, the Dollar Phone accounting department paid payphone compensation per rows 49 & 50.



Note:

Due to its size, this graphic is difficult to read. However it appears in the Appendix section under Plates.

This chart represents each quarter of the audit period. Note that in the quarter which ended the first period there was a discrepancy between the compensable calls mined and the calls paid. This is explained by Dollar Phone having a number of adjustments for old calls owed to PSPs and an overpayment issue resolved during the audit year 2006/2007. Nonetheless, accounting provided for the potential payment of underpaid, or not paid, calls, if they could ever be identified, is in place.

Subsequent quarters show the discrepancies being eliminated as Dollar Phone garnered better data from its new switches.

In regards to the overpayment issue, since the scenario represented an overpayment situation, rather than an underpayment one, it was felt that a more detailed investigation into why the overpayments was not warranted. The purpose of the audit is to assure payphone providers are paid.